Claims

1. A method of treating pain or alcohol abuse, providing opioid reversal, or maintaining opioid addicts comprising administering a therapeutic amount of an opioid condensation aerosol, having an MMAD less than 3 μm and less than 5% opioid drug degradation products, to a patient by inhalation, upon activation by the patient of the formation of, and delivery of, the condensation aerosol.

2. The method of claim 1, wherein said condensation aerosol is formed by

a. volatilizing an opioid under conditions effective to produce a heated vapor of the opioid; and

b. condensing the heated vapor of opioid to form condensation aerosol particles.

3. The method according to claim 2, wherein said administration results in a peak plasma concentration of said opioid in less than 0.1 hours.

4. The method of claim 2, wherein the opioid is selected from the group consisting of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil.

5. The method according to claim 3, wherein the administered aerosol is formed at a rate greater than 0.5 mg/second.

6. The method according to claim 1, wherein at least 50% by weight of the condensation aerosol is amorphous in form.

7. A method of treating pain or alcohol abuse, providing opioid reversal, or maintaining opioid addicts comprising administering a therapeutic amount of a fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil condensation aerosol, having an MMAD less than 3 μm and less than 5% fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil degradation products, to a patient by

inhalation, upon activation by the patient of the formation of, and delivery of, the condensation aerosol.

8. The method of claim 7, wherein said condensation aerosol is formed by

a. volatilizing fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil under conditions effective to produce a heated vapor of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil; and

b. condensing the heated vapor of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil to form condensation aerosol particles.

9. The method according to claim 7, wherein said administration results in a peak plasma concentration of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil in less than 0.1 hours.

10. The method according to claim 7, wherein at least 50% by weight of the condensation aerosol is amorphous in form.

11. The method according to claim 7, wherein said fentanyl condensation aerosol has an inhalable aerosol mass density of between 0.01 mg/L and 0.8 mg/L when delivered.

12. The method according to claim 7, wherein said naltrexone condensation aerosol has an inhalable aerosol mass density of between 15 mg/L and 35 mg/L when delivered.

13. The method according to claim 7, wherein said buprenorphine condensation aerosol has an inhalable aerosol mass density of between 0.1 mg/L and 1 mg/L when delivered.

14. The method according to claim 7, wherein said naloxone condensation aerosol has an inhalable aerosol mass density of between 0.05 mg/L and 3.5 mg/L when delivered.

15. The method according to claim 7, wherein said butorphanol condensation aerosol has an inhalable aerosol mass density of between 0.1 mg/L and 3 mg/L when delivered.

16. The method according to claim 7, wherein said hydromorphone condensation aerosol has an inhalable aerosol mass density of between 0.1 mg/L and 10 mg/L when delivered.

17. The method according to claim 7, wherein said oxycodone condensation aerosol has an inhalable aerosol mass density of between 0.5 mg/L and 10 mg/L when delivered.

18. The method according to claim 7, wherein said methadone condensation aerosol has an inhalable aerosol mass density of between 0.25 mg/L and 20 mg/L when delivered.

19. A method of administering an opioid to a patient to achieve a peak plasma drug concentration rapidly, comprising administering to the patient by inhalation an aerosol of an opioid having less than 5% opioid drug degradation products and an MMAD less than 3 microns wherein the peak plasma concentration of the opioid is achieved in less than 0.1 hours.

20. A method of administering of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil to a patient to achieve a peak plasma drug concentration rapidly, comprising administering to the patient by inhalation an aerosol of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil having less than 5% of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil degradation products and an MMAD less than 3 microns wherein the peak plasma drug concentration of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil is achieved in less than 0.1 hours.

21. A kit for delivering a drug aerosol comprising:

a) a thin coating of an opioid composition and

b) a device for dispensing said thin coating as a condensation aerosol.

22. The kit of claim 21, wherein the opioid in the composition is selected from the group consisting of fentanyl, naltrexone, buprenorphine, naloxone, butorphanol, hydromorphone, oxycodone, methadone, remifentanil, or sufentanil.

23. The kit of claim 21, wherein the device for dispensing said coating of an opioid composition as an aerosol comprises

(a) a flow through enclosure,

(b) contained within the enclosure, a metal substrate with a foil-like surface and having a thin coating of an opioid composition formed on the substrate surface,

(c) a power source that can be activated to heat the substrate to a temperature effective to volatilize the opioid composition contained in said coating, and

(d) inlet and exit portals through which air can be drawn through said device by inhalation,

wherein heating the substrate by activation of the power source is effective to form an opioid vapor containing less than 5% opioid degradation products, and drawing air through said chamber is effective to condense the opioid vapor to form aerosol particles wherein the aerosol has an MMAD of less than 3 microns.

24. The kit according to claim 23, wherein the heat for heating the substrate is generated by an exothermic chemical reaction.

25. The kit according to claim 24, wherein said exothermic chemical reaction is oxidation of combustible materials.

26. The kit according to claim 23, wherein the heat for heating the substrate is generated by passage of current through an electrical resistance element.

27. The kit according to Claim 23, wherein said substrate has a surface area dimensioned to accommodate a therapeutic dose of an opioid composition in said coating.

28. The kit according to claim 21, wherein a peak plasma concentration of opioid is obtained in less than 0.1 hours after delivery of the condensation aerosol to the pulmonary system.

29. The kit of claim 21, further including instructions for use.